Supplement Tables

Table S1 Up-regulated differential proteins related metabolism in X-/Y-sperm

Protein symbol	KEGG pathway
FUT8	Glycosaminoglycan biosynthesis keratan sulfate N-Glycan biosynthesis
HSD17B4	Primary bile acid biosynthesis
MTHFD2L	One carbon pool by folate
GGTA1	Glycosphingolipid biosynthesis - lacto and neolacto series
FTL	Porphyrin and chlorophyll metabolism
ALDH18A1	Arginine and proline metabolism
GSTK1	Glutathione metabolism Metabolism of xenobiotics by cytochrome P450 P450Drug metabolism - cytochrome P450
PGK1	Glycolysis / Gluconeogenesis
PEMT	Glycerophospholipid metabolism
COX7C	Oxidative phosphorylation

Table S2 Down-regulated differential proteins related metabolism in X-/Y-sperm

Protein symbol	KEGG pathway
COX1	Oxidative phosphorylation
COX6A1	Oxidative phosphorylation
ND2	Oxidative phosphorylation
ATP4A	Oxidative phosphorylation
ATP5F1A	Oxidative phosphorylation
LOC100524239	Oxidative phosphorylation
SDHC	Oxidative phosphorylation / TCA cycle
ND1	Oxidative phosphorylation
CYTB	Oxidative phosphorylation
ST3GAL1	Glycosaminoglycan biosynthesis keratan sulfate Glycosphingolipid biosynthesis - globo series Mucin type O-Glycan biosynthesis
MAN2B2	Other glycan degradation
NT5E	Nicotinate and nicotinamide metabolism / Pyrimidine metabolism / Purine metabolism
FTH1	Porphyrin and chlorophyll metabolism
TKFC	Glycerolipid metabolism
ANPEP	Glutathione metabolism